WHAT IS CLAIMED IS:

1. A compressor comprising:

a compressor mechanism, said compressor mechanism having a function for compressing and vomiting a refrigerator, and

a motor driving said compression mechanism;

wherein said motor includes a stator core having a plurality of teeth parts, a concentrated winding applied over each teeth part of said plurality of teeth parts and a rotor incorporating a plurality of permanent magnets;

said stator core is formed in an annular form by combining said plurality of core elements, and

each of said plurality of permanent magnets is provided at a larger pitch than the stator coil pitch.

2. The compressor of claim 1, wherein said rotor further includes an iron as a flux of magnetic induction, said iron being disposed between said each permanent magnet.

3. A compressor comprising:

a compression mechanism, said compressor mechanism having a function for compressing and vomiting a refrigerator, and

a motor driving said compression mechanism,

wherein said motor includes a stator core having a plurality of teeth parts, a concentrated winding applied over each teeth part of said plurality of teeth parts and a rotor incorporating a plurality of permanent magnets,

said stator core is formed in an annular form by combining said plurality of core elements, and

each of said plurality of permanent magnets is provided at a larger pitch than the stator coil pitch.

4. The compressor of claim 3 wherein said each teeth part includes an outer circumference part, and said each teeth part is combined by fitting parts disposed at end portion of said outer circumference part.

5. A compressor comprising:

a compression mechanism, said compressor mechanism having a function for compressing and vomiting a refrigerator, and

a motor driving said compression mechanism,

wherein said motor includes a stator core having a plurality of teeth parts, a concentrated winding applied over each teeth part of said plurality of teeth parts and a rotor incorporating a plurality of permanent magnets,

each of said plurality of permanent magnets is provided at a larger pitch than the stator coil pitch,

said plurality of permanent magnet are arranged around a center thereof,

at least one of said plurality of permanent magnets has a magnet forward portion and a magnet backward portion each having respective surfaces facing said stator core and angled toward each other.

6. A compressor comprising:

a compression mechanism, said compressor mechanism having a function for compressing and vomiting a refrigerator, and

a motor driving said compression mechanism,

wherein said motor includes a stator core having a plurality of teeth parts, a concentrated winding applied over each teeth part of said plurality of teeth parts and a rotor incorporating a plurality of permanent magnets,

each of said plurality of permanent magnets is provided at a larger pitch than the stator coil pitch,

said plurality of permanent magnet are arranged around a center thereof, and

at least one of said plurality of permanent magnets has a side facing said stator core which is indented inward towards the center.

7. A compressor comprising:

a compression mechanism, said compressor mechanism having a function for compressing and vomiting a refrigerator, and

a motor driving said compression mechanism,

wherein said motor includes a stator core having a plurality of teeth parts, a concentrated winding applied over each teeth part of said plurality of teeth parts and a rotor incorporating a plurality of permanent magnets,

each of said plurality of permanent magnets is provided at a larger pitch than the stator coil pitch, and

a first outer periphery portion of said rotor is different shape than a second outer periphery portion of said rotor without said second outer periphery portion being situated directly between any of said magnet.

8. An air-conditioner comprising:

a compressor of claim 1,

a heat exchanger, and

a refrigerating cycle connecting said compressor and said heat exchanger.

9. A refrigerator comprising:

a compressor of claim 1,

a heat exchanger, and

a refrigerating cycle connecting said compressor and said heat exchanger.